

REMARKS

The Applicants have now had an opportunity to carefully consider the comments set forth in the Office Action of March 1, 2004. Amendment, reexamination and reconsideration of the Application are respectfully requested.

The Office Action

In the Office Action mailed March 1, 2004:

claims 22-29 were rejected under 35 U.S.C. §112, second paragraph for being indefinite;

claims 1-5, 10-25 and 28-36 were rejected under 35 U.S.C. §102(a) as being anticipated by U.S. Patent Application Publication No. 2003/0016804 A1 by Sheha et al. ("Sheha");

claims 1-36 were rejected under 35 U.S.C. §102(a) as being anticipated by U.S. Patent Application Publication No. 2003/0052815 A1 by Russell et al. ("Russell");

claims 1-5, 10-25 and 28-36 were rejected under 35 U.S.C. §102(b) as being anticipated by EP 0942917 by Brisebois et al. ("Brisebois");

claims 1-10, 12, 14, 21-29 and 32 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,091,957 A1 to Larkins et al. ("Larkins"); and

claims 1-36 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent Application Publication No. 2002/0000930 A1 to Crowson et al. ("Crowson").

The Present Application

By way of brief review, the Present Application is directed to methods and systems for including called or paged party location information in information made available to user equipment of a calling or paging party. For example, the methods include determining that a called or paged party subscribes to a location service based on called or paged party identification information extracted from a call or page request or origination message (FIG. 1, 122, 118). Some embodiments include determining (FIG. 1, 126) if the called or paged parties desires to provide location information to the particular calling or paging party. If the called or paged party does subscribe to a location service and desires to provide location information to the calling or paging party, a determination is made as to the location of the called or paged party and that location information is transmitted to user equipment of the calling or paging party. Neither the paging or paged party is required to be "signed on" to an auxiliary system.

Additionally, only the called or paged party needs to be associated with (e.g., subscribe to) the location service.

The Cited References

In contrast, the primary reference of the Office Action to Sheha allegedly discloses a system and method for providing real time position information of one party to another party by utilizing a conventional telecommunication network system such as the conventional telephone network, a mobile telecommunications network, a computer network or the internet. It is respectfully submitted that the user of both the originating and destination telephone numbers must be associated with and "signed on" to the system of Sheha (e.g., paragraphs 39 and 44). Additionally, it is respectfully submitted that Sheha does not disclose or suggest verifying that a called party desires to provide location information to the calling party. Sheha discloses that an auxiliary system (ODAS) uses authentication and authorization protocols to establish that each user is genuine. However, Sheha does not disclose or suggest that this is done based on information extracted from an origination message. Instead, it is respectfully submitted that the auxiliary system of Sheha performs the verification based on some indirect notification (e.g., paragraph 39) or during some sign on procedure.

It is respectfully submitted that none of the other cited references cure the deficiencies of Sheha.

For example, Russell allegedly discloses a method and apparatus for acquiring a remote position. The system allegedly allows a user to locate a remote paging device located on a person or piece of property to determine its physical location. A user contacts an auxiliary system or position service provider, identifies a device or devices to be located and provides a password. A message is then generated to locate the remote device over a communications network. In one embodiment, a paging communications network is used. Another embodiment uses a Bluetooth Communications Network to contact the remote device (Abstract).

It is respectfully submitted that the subject matter of the present application is distinguished from the subject matter of Russell because the subject matter of the Present Application does not require a position service provider such as the position service provider 220 of FIG. 2 of Russell, the user does not have to contact a position service provider, and the user does not have to provide a password.

Instead, the methods of the present application are carried out automatically and

transparently to the users. In this regard, it is respectfully submitted that the procedures of Russell are not carried out based on information extracted from an origination message.

Brisebois allegedly discloses a method for augmenting communications between called and calling parties with context information that helps either or both parties decide whether and how to accept or initiate a communications event. However, it is respectfully submitted that Brisebois does not disclose or suggest determining that a called party subscribes to a caller location service or determining or verifying that a called party desires location information be transmitted to a particular calling or paging party.

Larkins allegedly discloses a systems and method which provides an originating telecommunications unit with the geographic location of a mobile telecommunications unit without actually placing a call to, or receiving a call from, the mobile unit. The originating unit provides a service platform with an authorization code and the telephone number, or other identification of the mobile unit to be located. The service platform then initiates a location program, which uses various geographic location methods to provide the originating unit with the location of the mobile unit, without the user of the mobile unit becoming aware that the location of the mobile unit is being determined (Abstract).

Again, it is respectfully submitted that the subject matter of the present application is distinguished from Larkins in that the methods and systems of the Present Application in that the originating unit, or calling or paging party, does not have to contact a special service platform and does not have to provide a service platform with an authorization code. In this regard, it respectfully submitted that Larkin does not disclose or suggest determining that the paged party subscribes to location service based on extracted paged party identification information extracted from an origination message.

Crowson allegedly discloses a location detection system that combines the accuracy of a GPS receiver with a two way paging system. The two way pager receives information indicative of the position of a GPS receiver and transmits the information on a reverse channel to a paging service. The information is forwarded to a location determination service that, if possible, converts the information into a location of the object and is provided to a requestor. In one embodiment of the invention, the requestor is a cellular call processor and the object is a cellular telephone. The location

information is used by the cellular call processor to direct an emergency call to the appropriate emergency agency as well as to provide emergency personnel with a map showing the location of the caller (Abstract).

Again, with reference to FIG. 4 of Crowson, a requestor uses equipment **124**, **126**, **128** to contact an auxiliary location determination system or service 64 and identifies the position sensing device **52** for which location information is desired to the location detection service **64**. The location detection service **64** then takes steps to determine the location of the position sensing device **52** of interest.

The subject matter of the Present Application is distinguished from Crowson because in the systems and methods of the Present Application a calling or paging party may determine the location of a called or paged party without contacting a third or auxiliary party. The subject matter of the Present Application adapts the telephone network to provide the desired location information by adapting telephone system message processing to determine if the location service is subscribed for and in some instances to determine if the calling party is entitled to the requested location information. In this regard, it is respectfully submitted that Crowson does not disclose or suggest determining that the paged party subscribes to location service based on the extracted paged party identification information extracted from an origination message.

The Claims Are Not Indefinite

Claims 22-29 were rejected under 35 U.S.C. §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. The Office Action explains that the system claims of **claims 22-29** were dependent on method **claim 19** and suggests that **claims 22-29** should depend from **claim 21**.

Claims 22-29 have amended to depend from **claim 21**. Therefore, withdrawal of the rejection under 35 U.S.C. §112, second paragraph is respectfully requested.

The Claims Are Not Anticipated

Claims 1-5, 10-25 and 28-36 were rejected under 35 U.S.C. §102(a) as being anticipated by Sheha. However, independent **claims 1 and 15** have been amended to recite receiving an origination message from the user equipment of the paging party, extracting paged party identification information from the origination message and

determining that the paged party subscribes to location service based on the extracted paged party identification information. Independent **claim 21** has been amended to recite means for receiving an origination message from the paging party, means for extracting paged party identification information from the origination message and means for determining that the paged party subscribes to a location service based on the extracted page party identification information. Independent **claim 33** has been amended to recite a coordinate determiner operative to determine geographic coordinates of user equipment of a paged party identified in information extracted from an origination message and a subscription feature determiner operative to determine if the paged party subscribes to a location service based on the identification information extracted from the origination message. These amendments are supported throughout the specification (for example, see page 7, line 31- line 5 and page 10, lines 23-27). It is respectfully submitted that Sheha does not disclose or suggest extracting called or paged party identification information from an origination message received from user equipment of a calling or paging party, or determining if a called or paged party subscribes to a location service based on such extracted information.

Additionally, it is respectfully submitted that the recitation of --origination message-- distinguishes the claimed subject matter from references that describe methods and systems that are based on devices that are auxiliary to a communications network (e.g., the ODAS of Sheha).

For at least the foregoing reasons, independent **claims 1, 15, 21 and 33**, as well as **claims 2-14, 16-20, 22-32 and 34-36**, which depend respectively therefrom are not anticipated by Sheha.

Additionally, **claim 3** recites that determining that the user equipment of the paged party includes a GPS receiver and requesting GPS coordinates from the user equipment of the paged party. It is respectfully submitted that Sheha does not disclose or suggest determining that the user equipment of the paged party includes a GPS receiver. Instead, Sheha asserts that the location of the mobile device is typically calculated by the mobile device by using an onboard position information device that is connected to the mobile device, or by getting network assisted position information from the wireless network through a separate or same wireless connection.

It is respectfully submitted that since the location of the mobile device in Sheha is calculated by the mobile device, Sheha teaches away from determining that the user equipment of the paged party includes a GPS receiver, as this would be known by the

mobile device and would not need to be determined.

Claim 4 recites determining that the user equipment of the paged party does not include a GPS receiver and requesting coordinates of the paged party user equipment from a reference cell site of the user equipment of the paged party. Again, Sheha does not disclose or suggest determining that the user equipment of the paged party does not include a GPS receiver and requesting coordinates of the paged party user equipment from a reference cell site. Sheha discloses that the location of the mobile device is calculated by the mobile device (paragraph 45) and does not disclose or suggest that coordinates of the paged party user equipment are requested from a reference cell site.

Claim 5 recites determining that the user equipment of the paged party does not include a GPS receiver and requesting coordinates of the user equipment of the paged party be determined by cellular triangulation. Arguments similar to those submitted in support of **claims 3 and 4** are submitted in support of **claim 5**. It is respectfully submitted that Sheha does not disclose or suggest determining that the user equipment of the paged party does not include a GPS receiver.

For at least the foregoing additional reasons, **claims 3-5** are unanticipated by Sheha.

Claim 14 recites verifying that the paging party is included in a list of potential paging parties to which the paged party location information is to be provided. It is respectfully submitted that Sheha does not disclose or suggest verifying that the paging party is included in the list of potential paging parties to which the paged party location information is to be provided.

For at least this additional reason, **claim 14** is unanticipated by Sheha.

In addition to the elements listed above in reference to the amendments to **claims 15**, **claim 15** also recites determining that the paged party subscribes to a location service` based on the extracted paged party identification information, determining if the user equipment of the paged party is GPS enabled, requesting GPS coordinates from the user equipment of the paged party if the user equipment of the paged party is GPS enabled and requesting cellular triangular services be used to generate location information regarding the user equipment of the paged party if the user equipment of paged party is not GPS enabled. Arguments similar to those submitted in support of **claims 3, 4 and 5** are submitted in support of **claim 15**. Sheha does not disclose or suggest determining that the paged party subscribes to a location

service based on paged party identification information extracted from an origination message, or determining if the user equipment of the paged party is GPS enabled.

For at least the foregoing additional reasons, **claim 15**, as well as **claims 16-20**, which depend therefrom, is not anticipated by Sheha.

Additionally, **claim 16** recites extracting paging party user equipment identification information from the origination message, retrieving a list of potential paging party user equipment for which the paged party desires to provide location information, comparing the extracted paging party user equipment identification information to entries in the list of potential paging party user equipment and determining that one of the entries in the list matches the extracted paging party user equipment identification information.

It is respectfully submitted that Sheha does not disclose or suggest retrieving a list of potential paging party user equipment for which the paged party desires to provide location information. Sheha does not disclose or suggest comparing the extracted paging party user equipment identification information to entries in the list of potential paging party user equipment. Sheha does not disclose or suggest determining that one of the entries in the list matches the extracted paging party user equipment identification information.

Claim 17 recites determining that the paged party subscribes to a location service based on the extracted paged party identification information comprises querying a subscriber database associated with the paged party and retrieving location feature subscription information regarding the paged party. It is respectfully submitted that Sheha does not disclose or suggest retrieving location feature description information regarding the paged party.

Claim 18 has been amended to recite determining if the user equipment of the paged party is GPS enabled comprises extracting paged party user equipment identification information from the origination message and retrieving GPS enablement status information regarding the paged party user equipment from a subscriber database of the paged party. It is respectfully submitted that Sheha does not disclose or suggest retrieving GPS enablement status information regarding the paged party user equipment from a subscriber database of the paged party.

Claim 19 recites determining if the user equipment of the paged party is GPS enabled comprises sending a GPS enablement query message to the user equipment of the paged party. It is respectfully submitted that Sheha does not disclose or suggest

sending a GPS enablement query message to the user equipment of the paged party.

Claim 20 recites requesting cellular triangulation services comprises transmitting a plurality of PSMM data collection messages to a respective plurality of cell sites within range of the user equipment of the paged party. It is respectfully submitted that Sheha does not disclose or suggest transmitting a plurality of PSMM data collection messages to a respective plurality of cell sites within range of the user equipment of the paged party.

For at least the foregoing additional reasons, **claims 16-20** are unanticipated by Sheha.

Arguments similar to those submitted in support **claims 3-5 and 16-20** are submitted in support of **claims 23-25 and 28-32**. For at least these additional reasons, **claims 22-32** are unanticipated by Sheha.

Claim 33 has been amended to recite a mobile switching center operative to provide paged party location information to user equipment of a paging party. The mobile switching center comprises a coordinate determiner operative to determine geographic coordinates of user equipment of a paged party identified in information extracted from an origination message and a subscription feature determiner operative to determine if the paged party subscribes to a location service based on the identification information extracted from the origination message. It is respectfully submitted that Sheha does not disclose or suggest the mobile switching center including a coordinate determiner and a subscription feature determiner. Additionally, it is respectfully submitted that the ODAS of Sheha is not a mobile switching center. Furthermore, Sheha discloses that the location of the mobile device is typically calculated by the mobile device (paragraph 45). Sheha does not disclose or suggest that a location of a mobile device is calculated or determined by a mobile switching center or a coordinate determiner thereof.

For at least the foregoing additional reasons, **claim 33**, as well as **claims 34-36** which depend therefrom, is unanticipated by Sheha.

Additionally, **claim 34** recites the coordinate determiner comprises a GPS coordinate determiner operative to send a request for GPS coordinates to the user equipment of the paged party and receive GPS coordinates from the user equipment of the paged party. It is respectfully submitted that Sheha does not disclose or suggest a mobile switching center including a GPS coordinate determiner operative to send a request for GPS coordinates to user equipment of a paged party and receive GPS

coordinates from the user equipment of the paged party.

Claim 35 recites a mobile switching center wherein the coordinate determiner comprises a cellular triangulator operative to coordinate the collection of measurements associated with the user equipment of the paged party and the calculation of geographic coordinates associated with the location of the user equipment of the paged party based on the collected measurements. It is respectfully submitted that Sheha does not disclose or suggest a mobile switching center including a cellular triangulator as recited in **claim 35**.

Claim 36 recites a mobile switching center wherein the cellular triangulator is operative to collect the measurements associated with the user equipment through the transmission of a plurality of PSMM_request messages. It is respectfully submitted that Sheha does not disclose or suggest a mobile switching center including a cellular triangulator that is operative to collect measurements associated with user equipment through the transmission of a plurality of PSMM_request messages.

For at least the foregoing additional reasons, **claims 34-36** are anticipated by Sheha.

Claims 1-36 were rejected under 35 U.S.C. §102(a) as being anticipated by Russell. In explaining this rejection, the Office Action asserts that Russell discloses the claimed method and system for providing location information of a called party to a calling party and directs the attention of the Applicants to FIGS. 2 and 3 of Russell in support of this assertion.

However, FIG. 2 of Russell includes a position service provider **220** and FIG. 3 recites initiating a query with the position service provider **310**. As explained above, this query initiation includes providing a password to the position service provider (Abstract).

FIGS. 2 and 3 do not disclose or suggest receiving an origination message from the user equipment of the paging party, extracting paged party identification information from the origination message or determining that the paged party subscribes to a location service based on the extracted page party identification information, or means therefore. It is respectfully submitted that Russell does not disclose or suggest cellular triangulation or the exchange of PSMM messages. Furthermore, Russell does not disclose or suggest a Mobile Switching Center operative to provide paged party location information to user equipment of a paging party including a coordinate determiner, a subscription feature determiner and a network interface as recited in **claim 33** of the present application.

For at least the foregoing reasons, **claims 1-36** are not anticipated by Russell.

Claims 1-5, 1-25 and 28-36 were rejected under 35 U.S.C. §102(b) as being anticipated by Brisebois. In explaining this rejection, the Office Action asserts that Brisebois discloses a system and method for providing dynamic information to called and calling parties indicating the context of a communication event and that the context information may be location information. The location can match GPS data through a location translation table.

However, the Office Action makes no attempt to identify disclosure of each of the recited elements of the rejected claims. It is respectfully submitted that Brisebois does not disclose or suggest receiving an origination message from the user equipment of the paging party, extracting page party identification information from the origination message and determining that the paged party subscribes to location service based on the extracted paged party identification information or means therefore. Additionally, Brisebois does not disclose or suggest a mobile switching center including a coordinate determiner, a subscription feature determiner, a coordinate converter and a network interface as recited in **claim 33** of the present application.

Even if Brisebois is enabling for what it claims, Brisebois does not disclose or suggest determining that the paged party subscribes to a location service as recited in independent **claims 1, 15, 21 and 33**.

Additionally, **claims 1, 15, 21 and 33** have been amended to refer to an origination message and information extracted from the origination message. It is respectfully submitted that Brisebois does not disclose or suggest processing based on information extracted from an origination message.

For at least the foregoing reasons, independent **claims 1, 15, 21 and 33** are not anticipated by Brisebois.

Furthermore, it is respectfully submitted that Brisebois does not disclose or suggest additional elements recited in the dependent **claims 2-14, 16-20, 22-32 and 34-36**.

For at least the foregoing additional reasons, **claims 2-14, 16-20, 22-32 and 34-36** are unanticipated by Brisebois.

Claims 1-10, 12, 14, 21-29 and 32 were rejected under 35 U.S.C. §102(b) as being anticipated by Larkin. In explaining this rejection the Office Action asserts that Larkins discloses the claimed method and system for providing called party location information to the calling party. In support of this assertion the Office Action directs the

attention of the Applicants to the figure of Larkins and asserts that a geographic location provider uses GPS, triangulation, distance delay or signal strength methods to locate the called party and asserts that a service platform receives a request from an originating unit so as to initiate a program which locates the mobile unit being called, the geographic location provider determines the mobile unit, couples it to the service platform, which subsequently transmits it to the originating unit.

However, the Office Action makes no attempt to identify portions of Larkins that disclose or suggest each of the elements recited in the rejected claims.

It is respectfully submitted that the claims of the present application distinguish over Larkins in that they do not require that a calling party or user contact a geographic location provider or auxiliary service. Instead, the systems and methods of the present application automatically provide location information, when appropriate, automatically and transparently, based on information in call set up messages and databases of a communications network. In this regard, it is respectfully submitted that Larkins does not disclose or suggest receiving an origination message from user equipment of the paging party, extracting paged party identification information from the origination message and determining that the paged party subscribes to location service based on the extracted paged party identification information or means therefore.

For at least the foregoing reasons, **claims 1-10, 12, 14, 22-29 and 32** are not anticipated by Larkins.

Claims 1-46 were rejected under 35 U.S.C. §102(b) as being anticipated by Crowson. In explaining this rejection the Office Action asserts that Crowson discloses the claimed method and system and directs the attention of the Applicants to paragraphs 20-24 and 31-37 in support of this assertion.

However, it is respectfully submitted that Crowson discloses a system wherein a user uses user equipment **124, 126, 128** to communicate with a location determination service **64** or auxiliary system that in turn uses a two way paging system **68** to transmit a page to a two way pager. As such, it is respectfully submitted that Crowson does not disclose or suggest receiving an origination message from the user equipment of the paging party, extracting paged party identification information from the origination message and determining that the paged party subscribes to location service based on the extracted paged party identification information or means therefore. Additionally, Crowson does not disclose or suggest a mobile switching center including a coordinate determiner, a subscription feature determiner, a coordinate converter and a network

interface as recited in **claim 33**. Furthermore, Crowson does not disclose or suggest the exchange of PSMM_request messages recited in **claims 6, 7 and 27**. Or many of the elements recited in the other dependent claims.

For at least the foregoing reasons, **claims 1-36** are not anticipated by Crowson.

The Application is Directed to a Single Invention

The Office Action asserted that all of the claims of the instant application are not directed to a single invention, and warned that if the Applicants pursue separate lines of demarcation of patentability between the multiple inventions, a restriction may be required. In this regard the Office Action asserted that independent **claims 1 and 21** are directed to a method and system for providing location information of a called party to a calling party on the basis of extracted information and that **claim 33** is directed solely to a system for receiving coordinate data, converting the coordinate data to another form and transmitting the converted data. While the Applicants agree that **claims 33, 1 and 21** are of different scope, it is respectfully submitted that they are not drawn to different inventions.

Nevertheless, **claim 33** has been amended to recite a mobile switching center operative to provide paged party location information to user equipment of a paging party, the mobile switching center comprising a coordinate determiner operative to determine geographic coordinates of user equipment of a paged party identified in information extracted from an origination message and a subscription feature determiner operative to determine if the paged party subscribes to a location service based on the identification information extracted from the origination message.

For at least the foregoing reasons, it is respectfully submitted that the claims in the Present Application are directed to a single invention.

Telephone Interview

In the interests of advancing this application to issue the Applicant(s) respectfully request that the Examiner telephone the undersigned to discuss the foregoing or any suggestions that the Examiner may have to place the case in condition for allowance.

CONCLUSION

Claims 1-36 remain in the application. For at least the reasons detailed above, it is respectfully submitted that the claims are now in condition for allowance. An early indication thereof is respectfully requested.

Respectfully submitted,

FAY, SHARPE, FAGAN,
MINNICH & McKEE, LLP

June 1, 2004
Date

Joseph D. Dreher
Joseph D. Dreher, Reg. No. 37,123
Thomas Tillander, Reg. No. 47,334
1100 Superior Avenue
7th Floor
Cleveland, Ohio 44114-2579
(216) 861-5582

Certificate of Mailing

Under 37 C.F.R. § 1.8, I certify that this Amendment is being

- ☐ deposited with the United States Postal Service as First Class mail, addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date indicated below.
- ☐ transmitted via facsimile in accordance with 37 C.F.R. § 1.8 on the date indicated below.
- ☒ deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. 1.10 on the date indicated below and is addressed to the Mail Stop Amendment, Commissioner For Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

| |
|--------------------------------|
| Express Mail Label No.: |
| EL 964451841 |
| Date 6/1/04 |

| |
|---|
| Signature <u>Stephanie M. Weinhardt</u> |
| Printed Name Stephanie M. Weinhardt |